

1995/96

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## PSYC 61S: COURSE SYLLABUS SPRING 1996

### *Instructor*

N. W. Milgram

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Office Hours Wednesday 11-12

### *Tutorial Leaders and Teaching Assistants: (Office hours TBA)*

Elizabeth Head

Mike Michaels

Candace Ikeda-Douglas

### *Classrooms and scheduled times:*

#### Lectures:

Monday	10-11 H-215
Wednesday	10-11 H-215
Friday	10-11 H-215

#### *Tutorials:*

T1 Tuesday	10:00-11:00Room R-3011
T2 Thursday	10:00-11:00Room R-4224
T3 Friday	11:00-12:00Room H-408

#### *Course material:*

There is no textbook for this course. The course material includes the lectures, lecture notes, and material covered in tutorials.

## ***COURSE DESCRIPTION***

This course is intended to provide an introduction to the neurobiological basis of motivation, reinforcement, learning and memory. The course starts with a discussion of regulatory motivations. These are central states that help to maintain homeostasis and include the behaviors of respiration, thermoregulation, drinking and feeding. The next topic is sleep and arousal. Biological rhythms and their underlying mechanisms will also be discussed. The last topic covered in this part of the course will be sexual behavior. The role of neuroendocrine factors, development and neural organization will be discussed.

The second part of the course starts with the topic of reinforcement, which is concerned with how external events control both ongoing and future behavior. Next, we will discuss memory systems. A focus will be differences in memory systems and corresponding differences in brain organization. We will also cover

processes and mechanisms underlying short term and long term memory. The final topic will be the cellular and molecular basis of learning and memory.

Exams and Grading. The course will have three midterm exams worth 20% each. There will also be a final exam during the final exam period which will be worth 40% of the final grade.

Exam questions will be fill in the blank, short answer, and multiple choice. The exams will be based on the lectures notes and on updates provided in the lectures. Each midterm will be limited to the material covered in lectures. The final exam will be comprehensive, with a disproportionate weighting given to Chapter 18..

Tutorials. Tutorials will be used to discuss and review the material covered in lectures and the assigned readings. Tutorials will also be used to familiarize the student with the published literature in the fields of motivation and learning. A few original scientific papers will be assigned and discussed. There will also be regular quizzes on the material. Finally, there will be two tutorial assignments. The first will involve carrying out a literature review. The second assignment will be to write a short review article on a specific topic based on your reading of original scientific literature.

The tutorial grade will count for 20% of the final grade. Ten percent will be on the article. The other 10 percent will be on the first assignment, quizzes, and class participation.

#### Schedule

Week	Date	Lecture Topic	Assigned Readings
1	Jan 8	Introduction Respiration Thermoregulation Thirst	Chapter 13
2	Jan 15	Thirst Hunger	
3	Jan 22	Hunger Hunger	
4	Jan 29	Biological rhythms (Lectures on Chapter 14 will be given by E. Head)	Chapter 14
5	Feb 5	Sleep	
	Feb 7	Sleep	
	Feb 7	First Midterm 5-7 PM room H-305 (Chapters 13 and 14)	

6 Feb 9 Sexual Behavior Chapter 15  
Feb 12 Sexual Behavior

Feb 19 - No classes - reading week

7 Feb 26 Sexual Development  
8 March 4 Reward Chapter 16

(Lectures on Chapter 16 will be given by J. Rick)

9 March 11 Reward  
March 13 Reward  
March 15 Learning Chapter 17

10 March 18 Learning  
March 20 Learning  
March 20 **Second Midterm 5-7 Room H-216**  
**(Chapters 15, 16 Chapter 17, pp 1336-1371)**  
March 22 Memory systems

11 March 25 Memory systems,  
Learning and memory processes

12 April 1 Learning Mechanisms Chapter 18

13 April 8 Learning Mechanisms